



No. CCX.

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PEOPLE say architecture is a noble art, and so it truly is: its influence on taste and morals is undeniable, for, as an American writer observes,—"There is a kind of symmetry in the thoughts, feelings, and efforts of the human mind. Its taste, intelligence, affections, and conduct, are so intimately related, that no preconception can prevent them from being mutually causes and effects. The first thing powerfully operated on, and, in its turn, proportionally operative, is the taste. The perception of beauty and deformity, of refinement and grossness, of decency and vulgarity, of propriety and indecorum, is the first thing which influences man to attempt an escape from a grovelling, brutish character; a character in which morality is effectually chilled, or absolutely frozen,"—and so on, and so on. Those who profess this noble art should be gentlemen—must be gentlemen: men of education and cultivated taste, with more acute perceptions and finer feelings than the multitude. The sense of beauty is necessarily accompanied by a feeling of its superiority over deformity, and may be supposed to confer this superiority on those who possess it over those who do not. To stand under the shadow of a once great name,—every one remembers what Vitruvius looks for in the architectural character,—integrity, high feeling, nobleness of heart. For an architect even to solicit employment was an abasement, in the eyes of the accomplished Roman, of both art and artist, not to be endured. And we emphatically say the Roman was right.

So far then our exordium: and now we will just let our readers see what is thought of this noble art, and its high-minded professors, in at all events one district of Great Britain,—the good town of Ipswich.

The committee of the Mechanics' Institution there, proposing to erect a building for the purposes of the society, and desiring to have the best plan, and a choice of plans in order that they may get the best plan, have issued an advertisement to "Architects and Builders," stating this desire. They set forth that the building must not have more than 60 feet of frontage, and must comprise,—“A lecture room, about 30 feet high, to accommodate a lecturer and a company from 600 to 800 persons; a library and reading-room, or the two combined; a committee-room, class-room, and a good vestibule entrance; also rooms for the residence of the librarian:” and they say that the whole must not exceed the cost of 1,600*l*.

The plans are to be sent in under a private mark; and, will you believe it? no less a sum than *five guineas* will actually “be given for the one most approved, if the party be not employed to carry it out.” Listen to this, ye *Jaigoes* and *Christophers* of England! Talk no more of want of encouragement, ill-appreciation, insults to art,—but sit ye down to your tables; use the knowledge ye have acquired at so much cost and labour; and respond to this benevolent offer in the way it deserves.

And if you do so, it will be with one universal burst of contemptuous indignation, sufficient to awaken these gentlemen of Ipswich

from the ignorance which led to such a proposal, deter other committees from offering a similar insult, and perhaps effect an alteration in the miserable and degrading system altogether.

There is no mistake in the advertisement: it runs clearly, *five guineas* will be given for the one most approved, if the party be not employed to carry it out; goes on to say the institution is open to offers for sites or premises that are eligible (in the event of which latter not being found, the plans, of course, will not be carried out by any one), and is signed J. Allen Ransome and Henry Lawrence.

We wonder if Mr. J. Allen Ransome and Mr. Henry Lawrence felt ashamed of the document when they signed it? ashamed of themselves and their colleagues? If they did not, it must have been for want of thought on what they were doing.

If an architect were commissioned by an employer to design and prepare the plans for such a building, five-and-twenty pounds would be a moderate charge for them. And yet in the present case, architects are unblushingly invited to prepare these plans for merely the chance, the very remote chance, of getting five pounds, five shillings, or one-fifth of what they would be fairly entitled to charge. Apply the invitations, as we have often said, to lawyers, and doctors, butchers, and bakers; and while its absurdity is made manifest, the low and degraded position to which the profession of architecture is reduced also becomes strikingly apparent. Would Messrs. J. Allen Ransome and Henry Lawrence venture to put their names to an advertisement, offering five pounds for the best five-and-twenty pounds' worth of, say mechanism, of no use to any but the advertiser? or if they did, would a mechanic be found however vain he might be of his skill, and anxious to shew it, who would spend his time on such a losing game, even if certain that the best would have the miserable prize (?) which, in the case of the architects, is very far from clear. Or as we inquired when the fishmongers and poulterers advertised for the best plan of an asylum—what would fishmongers and poulterers say if they were asked to obtain and submit some particular kind of game (never called for by their every-day customers) on the chance that it would be bought at the ordinary market price? “But then, say the poulterers, *fowls* cost money, and are really worth something, whereas the designs you speak of are merely drawings, which, unless we take them, will not realise the cost of the paper they are made upon; so that the cases are not parallel.

Truly the cases are not parallel. An honest, able design represents not merely present time and thought, but a large premium and outlay in other respects, long travel, years of study, and many previous, and unsuccessful attempts. But whatever can be had for nothing is literally worth nothing: and thus it is that architects have lowered the character of their profession, and degraded themselves.”

The poulterers were had enough, and we told them so; but the *savans* and wisdom-lovers of Ipswich are a hundred times worse. The former did pledge themselves that the author of the selected design should carry it out, if found to have experience; but the Ipswich philosophers, while they offer to the successful candidate half the absurdly small sum which the others gave to the first unsuccessful competitor, do not even hint at employing him, but, indeed, make it as apparent as it can be made without saying so in words, that they do not contemplate any such step.

• Vol. IV., p. 46.

The question now comes, will architects be found to countenance a system, of which this is so bare-faced and insulting an illustration, by submitting plans on the terms proposed?

Earnestly we hope not, as well for the sake of the art as of the profession; and we trust that some steps will be taken, to let the enlightened committee of the Ipswich Literary Institution know the feeling with which their advertisement is viewed by the profession at large.

CHEMISTRY AS APPLIED TO CONSTRUCTION.

BY PROFESSOR GRIFFITHS.
INTRODUCTORY.

PROBABLY fifty-five substances must be regarded as *elements* in the present state of chemical science; their names are here subjoined in alphabetical order. Those marked * are combustible and non-metallic; those marked † are incombustible and non-metallic, the others are metallic.

1, aluminium; 2, antimony; 3, arsenic; 4, barium; 5, bismuth; 6, * boron; 7, † bromine; 8, cadmium; 9, calcium; 10, * carbon; 11, cerium; 12, † chlorine; 13, chromium; 14, cobalt; 15, columbium; 16, copper; 17, † fluorine; 18, glucinum; 19, gold; 20, * hydrogen; 21, † iodine; 22, iridium; 23, iron; 24, lanthanum; 25, lead; 26, lithium; 27, magnesium; 28, manganese; 29, mercury; 30, molybdenum; 31, nickel; 32, † nitrogen; 33, osmium; 34, † oxygen; 35, palladium; 36, * phosphorus; 37, platinum; 38, potassium; 39, rhodium; 40, * selenium; 41, silicium; 42, silver; 43, sodium; 44, strontium; 45, * sulphur; 46, tellurium; 47, thorium; 48, tin; 49, titanium; 50, tungsten; 51, vanadium; 52, uranium; 53, yttrium; 54, zinc; 55, zirconium.

Of the elements, the following will be most frequently mentioned during these papers on chemistry as applied to construction:—

I. Combustible and non-metallic: carbon, hydrogen, phosphorus, and sulphur.

II. Incombustible, and non-metallic: chlorine, nitrogen, and oxygen.

III. Metallic: aluminium, calcium, iron, magnesium, potassium, silicium, and sodium.

The leading chemical characters of these fourteen elements are as follows:—

Carbon, a non-metallic combustible solid perfectly unalterable by exposure to all vicissitudes of atmospheric temperature, or to the joint agency of air and water; but when its temperature is artificially raised, it burns by combining with oxygen, and produces carbonic acid gas. This compound unites with many metallic oxides to form *carbonates*, and they are of great utility and importance.

Hydrogen, a non-metallic gaseous element, eminently combustible, and producing during its combustion *water*, by uniting with the oxygen of the air. Hydrogen also combines with several non-metallic, and a few metallic elements, and it, in common with carbon, is most generally existent in organic bodies.

Phosphorus, a non-metallic element, solid, but combustible at a very slight elevation of temperature, and producing, by uniting with the oxygen of the air, *phosphoric acid*; this combines with many metallic oxides, and forms *phosphates*: some of these are important.

Sulphur, a non-metallic element, solid and easily combustible, and producing, during its combustion in air, *sulphurous acid*, or by modifying its combustion, in contact with certain compounds containing oxygen, the product is *sulphuric acid* or *oil of vitriol*; this acid combines with the generality of metallic oxides, forming *sulphates*, a very definite and extremely valuable class of compounds.

Chlorine, a non-metallic incombustible vapour of a greenish yellow colour, eminently poisonous, but a powerful disinfectant, and destroyer of colouring matters; it combines with the generality of the metallic and non-metallic elements, producing definite compounds, called *chlorides*, when they are not acid. The great natural source of chlorine is common salt, a binary compound of chlorine and sodium.

Nitrogen, a non-metallic incombustible gas, a perfect type of a non-supporter of combustion, existing in a state of uniform mixture with oxygen, carbonic acid, and watery vapour.

• See p. 47, ante.